

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 31-46 and 52-54 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the combination of Astle et al. (US 2003/0168389), Selby (U.S. Patent No. 4,246,101) and Carson et al. (U.S. Patent Publication No. 2006/0021944).

The cited references are not seen to teach or suggest at least the following features of independent Claims 31, 34, 37 and 38, nor does the outstanding rejection identify any teaching in the references that specifically corresponds to the features set forth below.

Claim 31

... said controller also being configured to [...] read the filter module unique identifier again once the predetermined quantity of fluid has been pumped and to control the pump to stop pumping when the unique identifier read after pumping the predetermined quantity of fluid matches the unique identifier read when the fluid quality sensor gave the second indication. (emphasis added)

Claim 34

... said controller also being configured to continue the pure water generation for a predetermined quantity of fluid once said fluid quality sensor gives a second indication indicating that the first filter section has failed and that the second filter section will fail imminently, and thereafter to halt pumping until said filter module is exchanged. (emphasis added)

Claim 37

... said controller being configured to begin estimating a quantity of fluid pumped once said fluid quality sensor gives a second indication indicating that said first filter stage has failed and that said second filter stage will fail imminently and to continue purifying water with said filter module until the estimated quantity of fluid pumped reaches a predetermined quantity... (emphasis added)

Claim 38

... said controller also being configured to control the pump to continue pumping until a predetermined quantity of fluid has been pumped if, during a pumping operation, said fluid quality sensor gives a second indication, and thereafter to

control the pump to not pump fluid until said filter module is replaced with a different one not corresponding to said unique one. (emphasis added)

The rejection alleges that Astle teaches a specified volume of liquid being produced before shutdown. This is different than the above-mentioned features, which concern pumping a predetermined quantity of fluid after a sensor reading indicates filter breakthrough has occurred.

At the cited portion, Astle merely describes a valve member (425) that can prevent flow through a connector head and which can be operatively associated with a controller to move the valve to a closed position when a monitoring device determines that a performance set point associated with the filter has been exceeded. See, Astle, paragraph [0058].

In other words, Astle's system is controlling the valve to stop the flow through a single filter when a performance set point for that filter has been exceeded. In contrast to Astle, Applicants' invention continues to pump fluid after detecting breakthrough in a first filter and then only pumps a predetermined quantity of fluid (e.g., the amount that can be filtered by the second filter).

Applicants' invention provides an advantage of having a back-up filter and controlling the pump to only pump a predetermined quantity of fluid through the backup filter. In a patient treatment setting, for example, the advantage provided Applicants' invention helps keep patients safe by providing a back-up filter and only allowing the predetermined quantity fluid (e.g., the filtering capacity of the back-up filter) to be pumped. This prevents the apparatus from operating in a mode in which fluid is being pumped but not filtered.

Astle contains no teaching or suggestion of the above features.

Selby, a secondary reference fails to remedy the deficiencies of Astle. As noted in the Office Action, “Selby does not appear to teach programming the controller based on the remaining life of the various filter units.” Office Action, page 5.

Carston, another secondary reference, describes a back-up filter, but fails to remedy the deficiencies of Astle discussed above.

Thus the cited references, whether viewed individually or in combination, fail to teach or suggest the above-mentioned features of independent Claims 31, 34, 37 and 38. Accordingly, the rejection of independent Claims 31, 34, 37 and 38, and their respective dependents is untenable and should be withdrawn.

Independent Claims 41, 43, 45, 52 and 54 were not specifically mentioned in the outstanding rejection. However, it is apparent that the cited references fail to teach or suggest the following limitations of independent Claims 41, 43, 45, 52 and 54:

Claim 41

... said resistivity monitor being positioned to detect a water quality between said first and second deionization stages, the first stage having a larger capacity than said second stage;

whereby, when said resistivity monitor detects a low resistivity and thereby breakthrough of contaminants and a consequent need for replacement of at least the first deionization stage, said second deionization stage is able to continue to filter so as to provide continued filtration for a time after breakthrough of said first deionization stage. (emphasis added)

Claim 43

... a controller configured to indicate an expiration of said replaceable deionizing filter module when said resistivity sensor indicates a predefined value.

Claim 45

... first portion including separate beds of strong base anion and strong acid cation;
said second portion including a mixed bed of anion and cation; and

a resistivity sensor located between said first and second filter portions and configured to measure a resistivity of water flowing from said first portion to said second portion..

Claim 52

... a station on said controller adapted to receive filter modules for purifying water, each filter module having a respective data carrier with a unique identifier;

said controller being configured to read a unique identifier from a respective data carrier and compare the read unique identifier, when a filter module is received by said station, to at least one other identifier and to prevent a water preparation operation or proceed with a water preparation operation responsively to a result of said comparison. (emphasis added)

Claim 54

... said controller receiving information from a sensor in the first filter module indicating a contaminant breakthrough, said controller being further configured to store an updated status indicating that the first filter module has been used to its data carrier;

said controller being further configured to prevent the use of said first filter module if said status indicated by the data carrier thereof indicates said first filter module was previously used. (emphasis added)

Accordingly, Applicants respectfully request that the rejection of independent

Claims 41, 43, 45, 52 and 54, and their respective dependents be withdrawn.

Applicants respectfully request a Notice of Allowance.

Should the Examiner believe that any further action is necessary to place this application in better form for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 (T4342-14498US01) any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby requested.

Respectfully submitted,

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